

WHAT IS CLAIMED IS:

1. An integrated circuit device comprising:

an integrated circuit formed on a first surface of a
5 substrate;

an insulator formed on a second surface opposed to the
first surface of the substrate; and

at least one connection pile made of a conductive material
filled up in a corresponding hole which is so formed that it
10 penetrates the substrate, the integrated circuit, and the
insulator.

2. The integrated circuit device according to claim 1,
wherein a thickness of the insulator is set to not less than
15 3 nm.

3. The integrated circuit device according to claim 1,
wherein a thickness of the substrate is set to not more than
100 μm .

20 4. The integrated circuit device according to claim 1,
wherein a circuit as a target in electrical connection formed
in the integrated circuit is electrically connected to the
connection pile.

25 5. An electronic device comprising a plurality of the
integrated circuit devices according to claim 1 which are
laminated in a multilayer structure,

wherein it is so positioned that a first connection pile
30 is electrically connected to a second connection pile under

a requirement of an electric connection for the first and second connection piles formed in first and second integrated circuits, respectively, which are contacted to each other in the multilayer structure, and

- 5 wherein it is so positioned the first connection pile is not electrically connected to the second connection pile under no requirement of the electric connection for the first and second connection piles.